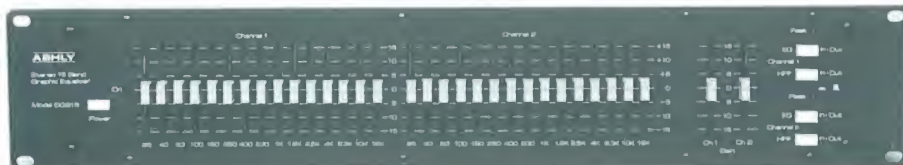


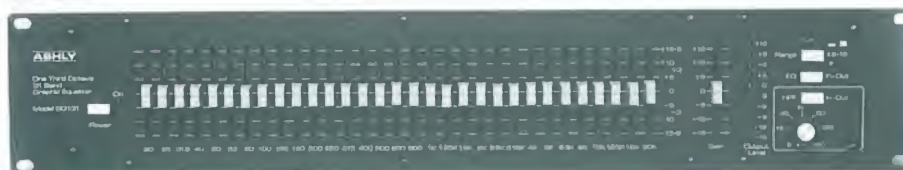
# ASHLY

## Graphic Equalizers

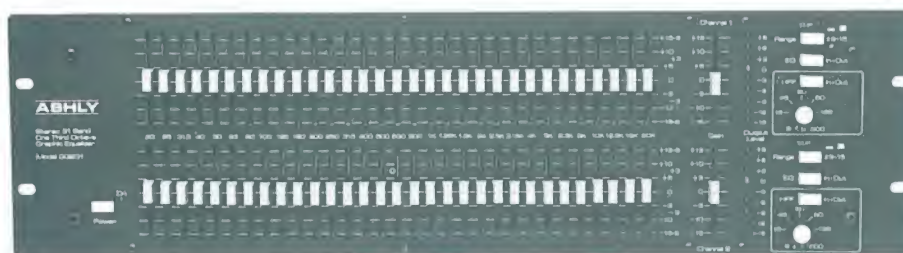
models GQ-215, GQ-131, GQ-231



GQ-215



GQ-131



GQ-231

**W**hen Ashly set out to design the GQ-Series, we first thoroughly re-examined the accepted principles of graphic equalization. Extreme accuracy and ease-of-use, combined with Ashly's renowned clean, straightforward engineering and design, produce a series of graphic equalizers that can truly be called the "next generation."

There are three models available in the GQ Series. The **GQ-215** offers two channels of 2/3-octave, 15-band equalization and features a peak-indicating LED, a fixed, switchable 40Hz subsonic filter, and a cut or boost range of  $\pm 15$ dB. The **GQ-131** is a mono 1/3-octave, 13-band equalizer, incorporating a switchable subsonic filter that is tunable between 8Hz and 200Hz, and a boost or cut range of either  $\pm 6$ dB or  $\pm 15$ dB. Additionally, a nine position, three color LED level meter and a peak-indicating LED are provided for visual reference. The **GQ-231** has two separate channels of 1/3-octave, 31-band equalization, each incorporating the same features as the **GQ-131**.

Ashly's innovations in the GQ-Series are numerous: New Op-Amps, with high slew-rate circuitry for the length of the signal path, turn out a clean and virtually noiseless, transparent sound. A unique summing system, with low-noise amplifiers, is utilized, allowing minimum ripple and filter interaction. At the detented "flat" center position, the filters go off-circuit for an extremely accurate flat response and absolute minimum noise. There is no broadening at all near the flat setting.

Our new Q-enhanced Wein-bridge filters are vastly superior to typical R-L-C and simulated inductor types. Constructed of precision metal-film resistors and polyester capacitors, they produce an ideal curve shape and precise center frequencies with low distortion.

Finally, a unique T-beam front panel construction eliminates interconnections between the faders and filters, resulting in a graphic equalizer with genuine Ashly innovation, reliability and sonic quality. The GQ Series, like all Ashly products, is now fully covered by our exclusive five-year worry-free warranty.

**Five-Year  
Worry-Free Warranty**

**Detented Metal-Shaft  
Fader with Saddle Knob**

**Precision Wein-bridge  
Filters for Accurate  
Response and  
Low Distortion**

**Constant "Q" Design  
with Low Ripple and  
Accurate Response  
Near the "Flat" Setting**

**Selectable 15dB or  
6dB range  
(on 31-Band Models)**

**Switchable-Tunable  
Low-Cut Filter  
(Switchable 40Hz  
Fixed on GQ-215)**

**9-Position, 3-Color  
LED Level Meter (on  
31-Band Models) Plus  
Peak LED Indicators**

**Balanced XLR and  
Unbalanced 1/4" Inputs  
and Outputs**



# Specifications

	GQ-215	GQ-131	GQ-231
<b>INPUT</b>			
Type:	Balanced	Balanced	Balanced
Impedance:	20k $\Omega$	44k $\Omega$	44k $\Omega$
Max. Level:	+20dBV	+26dBV	+26dBV
<b>OUTPUT</b>			
Type:	Balanced	Balanced	Balanced
Min. Load Impedance:	600 $\Omega$	600 $\Omega$	600 $\Omega$
Max. Level:	+20dBV	+26dBV	+26dBV
Frequency Response:	$\pm 25$ dB 20Hz-20kHz	$\pm 25$ dB 20Hz-20kHz	$\pm 25$ dB 20Hz-20kHz
IM Distortion (SMPTE):	<.01% @ +20dBV	<.01% @ +20dBV	<.01% @ +20dBV
THD (20Hz-20kHz):	<.01% @ +20dBV	<.01% @ +20dBV	<.01% @ +20dBV
Equivalent Input Noise (20Hz-20kHz):	-97dBV	-97dBV	-97dBV
<b>FILTERS</b>			
Type:	Constant Q/Wein-Bridge	Constant Q/Wein-Bridge	Constant Q/Wein-Bridge
Number:	2 X 15	31	2 X 31
Bandwidth:	2/3 Octave	1/3 Octave	1/3 Octave
Tolerance:	$\pm 2\%$	$\pm 2\%$	$\pm 2\%$
Range:	$\pm 15$ dB	$\pm 6/15$ dB	$\pm 6/15$ dB
Subsonic Filter:	12dB/Octave @ 40Hz	12dB/Octave, 8-200Hz	12dB/Octave, 8-200Hz
Power Requirements:	120VAC, 50-60Hz, 12W	120VAC, 50-60Hz, 12W	120VAC, 50-60Hz, 12W
Shipping Weight:	10 lbs	10 lbs	15 lbs
Dimensions:	19"L x 3.5"H x 6"D	19"L x 3.5"H x 6"D	19"L x 5.25"H x 6"D
I/O Connectors:	XLR and 1/4"	XLR and 1/4"	XLR and 1/4"

## Architect's Specification

### GQ-215

The graphic equalizer shall be stereo (2-channels). Each channel shall consist of 15 bands centered on standard ISO frequencies at intervals of 2/3 octave and covering a frequency range of 25Hz to 16kHz. Individual bands shall be activated by linear slide faders with a 45mm travel, metal actuator shafts and a tactile center detent. The range of equalization per band shall be  $\pm 15$ dB. The equalizer shall have a gain of unity with all sliders centered, and shall have a maximum in/out level of +20dBV. Frequency response shall be  $\pm 25$ dB 10Hz to 20kHz. Hum and noise shall be at least -97dBV and SMPTE intermodulation distortion or THD shall be less than .01% at full output. Input impedance shall be 20k $\Omega$  balanced, 10k $\Omega$  unbalanced. Output impedance shall be 200 $\Omega$ . Inputs and outputs shall be active (transformerless) balanced type on both XLR and 1/4" phone jacks. Individual filters shall be Wein-bridge type and connected in a summing circuit optimized for minimum filter interaction and constant bandwidth at any slider setting. Boost and cut characteristics shall be fully symmetrical, with the filter being electrically removed from the circuit in the center (flat) position. Individual filters shall be accurate to within 2% of indicated center frequency and shall be non-adjustable to insure long term accuracy. The equalizer shall also include a 12dB per octave high pass filter at 40Hz, equipped with a bypass switch. An LED indicator shall show overload conditions. Input gain shall be adjustable over a range of  $\pm 15$ dB, and an overall EQ bypass switch shall be included. The equalizer shall weigh 9.5 lbs net and mount in a standard 19" rack using 2 spaces (3.5" high). The power requirement shall be 110-115VAC, 50-60Hz, 12W. The unit shall be an ASHLY AUDIO GQ-215.

### GQ-131

The graphic equalizer shall be monoaural (1 channel). It shall consist of 31 bands centered on standard ISO frequencies at intervals of 1/3 octave and covering a frequency range of 20Hz to 20kHz. Individual bands shall be activated by linear slide faders with a 45mm travel, metal actuator shafts and a tactile center detent. The range of equalization per band shall be either  $\pm 6$ dB or  $\pm 15$ dB selected via a 2-position switch. The equalizer shall have a gain of unity with all sliders centered, and shall have a maximum in/out level of +26dBV. Frequency response shall be  $\pm 25$ dB 10Hz to 20kHz. Hum and noise shall be at least -97dBV and SMPTE intermodulation distortion or THD shall be less than .01% at full output. Input impedance shall be 44k $\Omega$  balanced, 22k $\Omega$  unbalanced. Output impedance shall be 200 $\Omega$ . Inputs and outputs shall be active (transformerless) balanced type on both XLR and 1/4" phone jacks. Individual filters shall be Wein-bridge type and connected in a summing circuit optimized for minimum filter interaction and constant bandwidth at any slider setting. Boost and cut characteristics shall be fully symmetrical, with the filter being electrically removed from the circuit in the center (flat) position. Individual filters shall be accurate to within 2% of indicated center frequency and shall be non-adjustable to insure long term accuracy. The equalizer shall also include an 18dB per octave high pass filter tunable from 8Hz to 200Hz, equipped with a bypass switch. A 3 color bar-graph meter shall be employed to show overall output level and an LED indicator shall show overload conditions. Input gain shall be adjustable over a range of  $\pm 15$ dB, and an overall EQ bypass switch shall be included. The equalizer shall weigh 9.5 lbs net and mount in a standard 19" rack using 2 spaces (3.5" high). The power requirement shall be 110-115VAC, 50-60Hz, 12W. The unit shall be an ASHLY AUDIO GQ-131.

### GQ-231

The graphic equalizer shall be stereo (2 channels). Each channel shall consist of 31 bands centered on standard ISO frequencies at intervals of 1/3 octave and covering a frequency range of 20Hz to 20kHz. Individual bands shall be activated by linear slide faders with a 45mm travel, metal actuator shafts and a tactile center detent. The range of equalization per band shall be either  $\pm 6$ dB or  $\pm 15$ dB selected via a 2-position switch. The equalizer shall have a gain of unity with all sliders centered, and shall have a maximum in/out level of +26dBV. Frequency response shall be  $\pm 25$ dB 10Hz to 20kHz. Hum and noise shall be at least -97dBV and SMPTE intermodulation distortion or THD shall be less than .01% at full output. Input impedance shall be 44k $\Omega$  balanced, 22k $\Omega$  unbalanced. Output impedance shall be 200 $\Omega$ . Inputs and outputs shall be active (transformerless) balanced type on both XLR and 1/4" phone jacks. Individual filters shall be Wein-bridge type and connected in a summing circuit optimized for minimum filter interaction and constant bandwidth at any slider setting. Boost and cut characteristics shall be fully symmetrical, with the filter being electrically removed from the circuit in the center (flat) position. Individual filters shall be accurate to within 2% of indicated center frequency and shall be non-adjustable to insure long term accuracy. The equalizer shall also include an 18dB per octave high pass filter tunable from 8Hz to 200Hz, equipped with a bypass switch. A 3 color bar-graph meter shall be employed to show overall output level and an LED indicator shall show overload conditions. Input gain shall be adjustable over a range of  $\pm 15$ dB, and an overall EQ bypass switch shall be included. The equalizer shall weigh 13lbs net and mount in a standard 19" rack using 3 spaces (3.25" high). The power requirement shall be 110-115VAC, 50-60Hz, 20W. The unit shall be an ASHLY AUDIO GQ-231.

Ashly Audio Inc.

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## Since 1972

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